SAMSUNG ELECTRO-MECHANICS

RoHS+Halogen Compliant ecoparts

SPECIFICATION

- **Supplier : Samsung electro-mechanics**
- **Product : Multi-layer Ceramic Capacitor**
- **Samsung P/N : CL31C100JHFNFNE**
- **Description : CAP, 10㎊, 630V, ±5%, C0G, 1206**

A. Samsung Part Number

CL	31	C	100	J	H	F	N	F	N	E
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪

①	**Series**	Samsung Multi-layer Ceramic Capacitor			
②	**Size**	1206 (inch code)	L: 3.2 ± 0.15 mm	W: 1.6 ± 0.15 mm	
③	**Dielectric**	C0G	⑧	**Inner electrode**	Ni
④	**Capacitance**	10 ㎊		**Termination**	Cu
⑤	**Capacitance tolerance**	±5 %		**Plating**	Sn 100% (Pb Free)
			⑨	**Product**	Product for POWER application
⑥	**Rated Voltage**	630 V	⑩	**Special**	Reserved for future use
⑦	**Thickness**	1.25 ± 0.15 mm	⑪	**Packaging**	Embossed Type,7"reel(2,000ea)

B. Samsung Reliability Test and Judgement condition

	Performance	Test condition
Capacitance	Within specified tolerance	1㎒±10% 0.5~5Vrms
Q	600 min	
Insulation Resistance	More than 500Mohm·㎌	500±50 Vdc 60~120 sec.
Appearance	No abnormal exterior appearance	Visual inspection
Withstanding Voltage	No dielectric breakdown or mechanical breakdown	150% of the rated voltage
Temperature Characteristics	C0G (From -55℃ to 125℃, Capacitance change should be within ±30PPM/℃)	
Adhesive Strength of Termination	No peeling shall be occur on the terminal electrode	500g·F, for 10±1 sec.
Bending Strength	Capacitance change : within ±0.5㎊	Bending to the limit (1mm) with 1.0mm/sec.
Solderability	More than 75% of terminal surface is to be soldered newly	SnAg3.0Cu0.5 solder 245±5℃, 3±0.3sec. (preheating : 80~120℃ for 10~30sec.)
Resistance to Soldering heat	Capacitance change : within ±0.25㎊ Tan δ, IR : initial spec.	Solder pot : 270±5℃, 10±1sec.

	Performance	Test condition
Vibration Test	Capacitance change : within ±0.25㎊ Tan δ, IR : initial spec.	Amplitude : 1.5mm From 10㎐ to 55㎐ (return : 1min.) 2hours × 3 direction (x, y, z)
Moisture Resistance	Capacitance change : within ±0.75㎊ Q : 133.33 min IR : More than 25㏁·㎌	With rated voltage 40±2℃, 90~95%RH, 500 +12/-0 hours
High Temperature Resistance	Capacitance change : within ±0.3㎊ Q : 300 min IR : More than 50㏁·㎌	With 120% of the rated voltage Max. operating temperature 1000+48/-0 hours
Temperature Cycling	Capacitance change : within ±0.25㎊ Tan δ, IR : initial spec.	1 cycle condition Min. operating temperature → 25℃ → Max. operating temperature → 25℃ 5 cycles test

C. Recommended Soldering method :

Reflow (Reflow Peak Temperature : 260+0/-5℃, 10sec. Max)

* For the more detail Specification, Please refer to the Samsung MLCC catalogue.